AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings.

Listing of Claim

1 - 93. (Cancelled)

94. (New) Device for checking an authenticity of a forgery-proof marking having a surface with colors which change depending on an angle of observation, comprising:

a) several first light sources which emit light in a specified spectral range, wherein the first light sources differ from one another in wavelength of their emission maximum, and wherein the first light sources are installed in a housing so that they irradiate a surface of the marking at a specified first angle when the housing is placed on the surface,

b) several second light sources which emit light in a specified spectral range, wherein the second light sources differ from each other in wavelength of their emission maximum, and wherein the second light sources are installed in the housing so that they irradiate the surface at a specified second angle when the housing is placed on top of the surface, which second angle is different from said first angle,

c) first means in the housing located at a third angle for measuring intensities of light specularly reflected by the surface of the marking,

d) second means in the housing located at a fourth angle for measuring intensities of light specularly reflected from the surface of the marking, and

e) means for automatically comparing the measured intensities with stored reference intensities for the respective light sources for at least one specified color.

95. (New) Device as defined in claim 94, wherein the specified spectral range has a width of less than 100 nm at half maximum intensity.

96. (New) Device as defined in claim 94, wherein the light sources are light-emitted diodes, lasers or the free ends connected light-conducting fibers.

97. (New) Device as defined in claim 94, wherein the means of measuring the intensities has at least one photo diode.

98. (New) Device as defined in claim 94, wherein the first angle and the second angle are in a range from 15° to 45°.

99. (New) Device as defined in claim 94, wherein a unit for the sequential illumination of the surface with the light sources and for the measurement of the particular intensities of the reflected light in a defined sequence is provided.

100. (New) Device as defined in claim 94, wherein the emission maximum of the light sources is in near UV, in visible, or in IR spectral range.

101. (New) Device as defined in claim 94, wherein the illumination and measuring duration is specified in dependence on luminance characteristic of each of the light sources and/or measuring characteristic of the means for measuring the intensities.

102. (New) Device as defined in claim 94, wherein a mechanical arrangement, an electronic arrangement or a software arrangement, is provided to offset background light.

103. (New) Device as defined in claim 94, wherein a unit is provided to modulate the light sources to separate interference signals from the measuring signals.

104. (New) Device as defined in claim 94, wherein at least 3 and not more than 12 first and/or second light sources are provided.

105. (New) Device as defined in claim 94, wherein the means for automatically comparing the measured intensities comprises a micro-controller.

106. (New) Device as defined in claim 94, wherein an indication device including a display, or one or more additional light-emitting diodes, is provided to indicate results determined from the-comparison.

107. (New, withdrawn) Combination of the device as defined in claim 94, and a forgery-proof marking, wherein the forgery-proof marking has an electro-magnetic-wave-reflecting first layer connected with an object to which an electro-magnetic-wave-permeable, inert second layer with a specified thickness is applied, and wherein a third layer consisting of metallic clusters is applied to the second layer.

108. (New, withdrawn) Combination as defined in claim 107, wherein at least one of the layers has a structure.

109. (New, withdrawn) Combination as defined in claim 107, wherein an electro-magnetic-wave-permeable, inert fourth layer covering the third layer is provided.

110. (New, withdrawn) Combination as defined in claim 107, wherein

the metallic clusters are made of silver, gold, platinum, aluminum, copper, tin or indium.

111. (New, withdrawn) Combination as defined in claim 109, wherein the second and/or fourth layer is/are made of one of the following materials: metal oxide, metal nitrite, metal carbide, including silicon oxide, silicon carbide, silicon nitrite, tin oxide, tin nitrite, aluminum oxide, aluminum nitrite or polymers, polycarbonate, polyethylene, polypropylene, polyurethane, polyimide, polystyrene, and polymethacrylate.

112. (New, withdrawn) Combination as defined in claim 107, wherein a uniquely identifiable coloring is recognized at an interval between the first and the third layer of less than 2 μm.

113. (New, withdrawn) Combination as defined in claim 107, wherein at least one of the first, second and third layers is made via thin-film technology or a printing technology.

114 (New, withdrawn) Combination as defined in claim 113, wherein the printing technology comprises gravure printing, and wherein the thin film technology comprises physical vapor deposition or chemical vapor deposition.

115. (New) Method for checking the authenticity of a forgery-proof marking having a surface with colors which change depending on angle of observation, comprising the following steps:

irradiating the surface of the marking with several first light sources emitting light in a specified spectral range at a first angle, wherein the light sources differ from each other in the wavelength of their emission maximum,

irradiating the surface of the marking with several second light sources accommodated in a housing and emitting light in the specified spectral range at a second angle, wherein the second light sources differ from each other in the wavelength of their emission maximum,

measuring intensities of light specularly reflected by the surface of the marking by first means for measuring of intensities arranged at a third angle in the housing,

measuring intensities of light specularly reflected by the surface of the marking by second means for measuring of intensities arranged at a fourth angle in the housing, and

comparing measured intensities with reference intensities stored for the particular light sources for at least one specified color.

116. (New) Method as defined in claim 115, wherein the specified spectral range has a width of less than 100 nm at half maximum intensity.

117. (New) Method as defined in claim 115, wherein the first, second, third and fourth angles are specified by installing the light sources and the means of measuring the intensities in a common housing.

118. (New) Method as defined in claim 115, wherein light-emitting diodes, lasers or free ends connected light-conducting fibers are used as light sources.

119. (New) Method as defined in claim 115, wherein at least one photo diode is used as the means of measuring the intensities.

120. (New) Method as defined in claim 115, wherein the first angle and the second angle differ from one another and are in a range from

15° to 45°.

121. (New) Method as defined in claim 115, wherein the light sources run sequentially in a defined order.

122. (New) Method as defined in claim 115, wherein emission maximum of the light sources is located in ear UV, in visible or in IR spectral range.

123. (New) Method as defined in claim 115, wherein duration of illumination and measurement is specified in dependence on luminance characteristic of each of the light sources and/or the measurement characteristic of the means of measuring the intensities.

124. (New) Method as defined in claim 115, wherein background light is compensated for by using at least one of a mechanical arrangement, an electronic arrangement or a software arrangement.

125. (New) Method as defined in Claims 115, wherein the light sources are modulated to separate interference signals from measuring signals.

126. (New) Method as defined in claim 115, wherein at least 3 and not more than 12 first and/or second light sources are provided.

127. (New) Method as defined in claim 115, wherein the comparing measured intensities step is performed using a micro-controller.

128. (New) Method as defined in claim 115, wherein result determined during the comparison is indicated via an indication device including a display or one or more additional light-emitting diodes.

129. (New) Method as defined in claim 115, wherein a marking is used as the forgery-proof marking which has a first layer that reflects electro-magnetic waves and is connected with an object, on which an inert, electro-magnetic-wave-permeable second layer with a specified thickness is applied, and wherein a third layer, made of metallic clusters, is applied to the second layer.

130. (New) Method as defined in claim 129, wherein at least one of the layers has a structure.

131. (New) Method as defined in claim 129, wherein an inert fourth layer is provided which covers the third layer and which can be permeated by electro-magnetic waves.

132. (New) Method as defined in claim 129, wherein the metallic clusters are made of silver, gold, platinum, aluminum, copper, tin, iron, cobalt, chromium, nickel, palladium, titanium or indium.

133. (New) Method as defined in claim 129, wherein the second and/or fourth layer is/are made of one of the following materials: metal oxide, metal nitrite, metal carbide including silicon oxide, silicon nitrite, tin oxide, tin nitrite, aluminum oxide, aluminum nitrite or polymers including polycarbonate, polyethylene, polypropylene, polyurethane, polyimide, polystyrene, polyethylene terephthalate or polymethacrylate.

134. (New) Method as defined in claim 129, wherein a uniquely identifiable coloring is recognized at an interval between the first and the third layer of less than 2 μm.

135. (New) Method as defined in claim 129, wherein the layers are made via thin-film technology or a printing technology.

136. (New) Method as defined in claim 135, wherein the printing technology comprises gravure printing, and wherein the thin film technology comprises physical vapor deposition or chemical vapor deposition.